

ABSTRACT OF PROTOCOL

This protocol studies patients with advanced cancer who have failed standard therapy. The major goal is to treat cutaneous lesions and to enhance the patient's immune reactivity to their own tumor. The interleukin-12 (IL-12) subunit genes (p35 and p40) and a selectable marker, neomycin phosphotransferase, will be introduced into a fibroblast line established from the patient using a retroviral vector. These gene-modified fibroblasts will then be injected peritumorally into the patient. This injection may have direct antitumor effect. It may also augment the immune response of the patient since the immune stimulatory effects of the IL-12 secreted by the gene modified fibroblasts may be systemic. To further evaluate the immune response of the patient to their own tumor, irradiated tumor cells or common recall antigens will be inoculated to patients as skin tests. Animal models have shown that injection of gene modified fibroblasts has important antitumor effects. A total of four injections will be performed in four weeks.

The patients will be evaluated for antitumor effects engendered by the peritumoral injection of the gene modified fibroblasts. The injection of gene modified fibroblasts may serve to "immunize" the patient to their tumor and may be amenable for use in a wide variety of tumor types, especially those that are poorly immunogenic. This protocol may also increase the effectiveness of active immunotherapy as well as expand the use of subsequent administration of IL-2 to patients with other malignancies not currently amenable to immunotherapy.